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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,134	04/08/2004	Han Jun Sung	1594.1364	6666

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EXAMINER

EARLY, MICHAEL JACOBY

ART UNIT	PAPER NUMBER
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3744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/820,134	Applicant(s) SUNG ET AL.	
	Examiner Michael J. Early	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2006 and 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10, 11, 13-15 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 6-9, 12 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3744

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

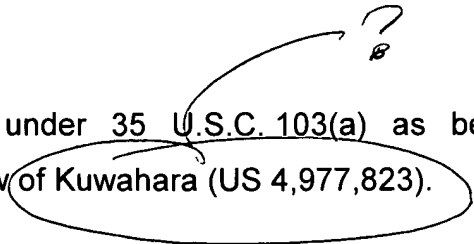
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 10, 13-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,405,639) in view of Kuwahara (US 4,977,823).



Regarding claim 1, Lee et al. disclose a grill cooker (30 – meat roaster), comprising a heating unit (340 – heat source) generating heat to grill food (see col. 6, lines 33-36;

Art Unit: 3744

Figure 4); a grilling unit (302 – grill) provided above the heating unit (as seen in Figure 4), with the food (meat) placed on the grilling unit (see Abstract), the grilling unit comprising a grilling pipe (302b – fluid circulating pipe) above the heating unit (as seen in Figure 4); and a cooling unit (308, 3206, 3406 – temperature controller; col. 5, lines 1-3; col. 11, lines 45-49 and 58-60) connected to the grilling unit to cool the grilling unit using a fluid (see col. 4, line 63 – col. 5, line 14).

Lee et al. do not expressly disclose the use of an air cooling unit.

Miyagawa et al. teach of a cooking stove that is comprised of a grilling unit (2, 6 – cooking stove, back grill) and an air cooling unit (13 – motor-driven cooling fan), wherein the fans are used to cool the apparatus (see Abstract; see col. 2, line 64 – col. 3, line 4) (as seen in Figure 2, 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Lee et al. by incorporating cooling fans, as taught by Miyagawa et al., so to provide an active means of cooling the apparatus, thus reducing the overall temperature of the apparatus and making it less harmful for users to operate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Lee et al. by using air as the system's cooling fluid, as taught by Miyagawa et al., because air is an abundant, light-weight and easily assessable cooling fluid, thus providing a means of reducing the costs and maintain associated with operating the apparatus.

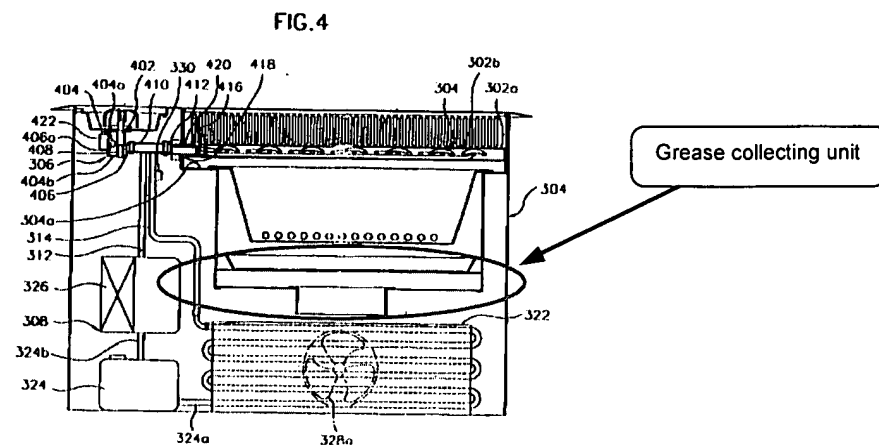
Regarding claim 2, Lee et al. disclose the cooling unit comprises a blowing fan (326 – pump) to blow fluid into the grilling pipe to cool the grilling unit (see col. 4, lines 63 – col. 5, line 14; Figures 3, 4).

Regarding claim 3, Lee et al. disclose the grilling pipe has an inlet (302c – inlet socket) at one end and an outlet (302d – outlet socket) at another end thereof (as seen in Figures 3-5), and the cooling unit further comprises a discharging pipe (312 – first/inlet hose) to connect the blowing fan to the inlet of the grilling pipe (as seen in Figures 3, 5), the fluid entering the grilling pipe by the blowing fan blowing fluid into the discharging pipe (as seen in Figures 3, 5) and being discharged to an area outside of the grilling pipe through the outlet of the grilling pipe to maintain a temperature of the grilling pipe below a predetermined temperature (see col. 4, lines 10-20; Figures 3-5).

Regarding claim 4, Lee et al. disclose the grill cooker further comprises a cabinet (304 – body) that is open at a top thereof to form an opening (as seen in Figures 3, 4), and wherein the cabinet includes the heating unit (see col. 6, lines 33-36; Figure 4), the grilling unit is seated on the opening of the cabinet (as seen in Figures 3, 4), and the cooling unit is provided on an outer surface of the cabinet (the cooling unit can also be seen to be located in a lower portion of the cabinet; Figures 3, 4).

Regarding claim 5, Lee et al. disclose a connection member (414 – first moving tube) provided on an upper portion of the cabinet to connect the discharging pipe to the inlet of the grilling pipe (as seen in Figures 3-5).

Regarding claim 10, Lee et al. disclose a grease collecting unit (as seen in the first illustration of Figure 4 below), provided in the cabinet under the grilling unit (as seen in Figure 4), to collect grease and sauces dripping from the food that is placed on the grilling unit during grilling of the food (as seen in Figure 4).



Regarding claim 13, Lee et al. disclose a multipurpose cooking apparatus (3400 – gas range; Figure 34), comprising a housing (as seen in the partial illustration of Figure 34 below) having at least one recess (1204a – accommodating portion) on an upper portion of the housing (as seen in Figures 4, 12a, 34); and a grill cooker (30 – meat roaster; col. 11, line 61 – col. 12, line 6) removably seated in the at least one recess (as seen in Figures 4, 12a, 34), the grill cooker comprising a heating unit (430 – heat source) generating heat to grill food (see col. 6, lines 33-36; col. 12, lines 2-6), a grilling unit (3404 – grill) provided above the heating unit (as seen in Figures 4, 34), with the food placed on the grilling unit (see col. 11, line 61-64), the grilling unit comprising at least one grilling pipe (3403a – fluid circulating pipe) above the heating unit (as seen in Figure 4, 34) and comprising an inlet (302c – inlet socket) and an outlet (302d – outlet socket), and a cooling unit (308, 3206, 3406 – temperature controller; col. 5, lines 1-3; col. 11, lines 45-49 and 58-60) connected to the grilling unit to cool the grilling unit using a fluid (see col. 4, line 63 – col. 5, line 14; col. 11, lines 56-60).

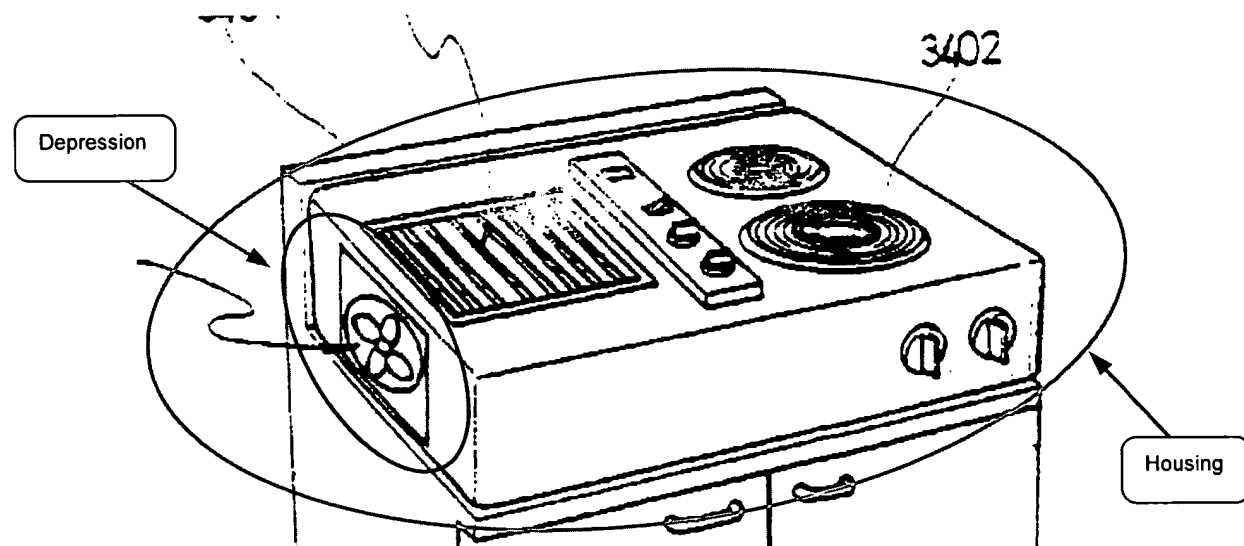
Lee et al. do not expressly disclose the use of an air cooling unit.

Art Unit: 3744

As aforementioned, Miyagawa et al. teach of a cooking stove that is comprised of a grilling unit (2, 6 – cooking stove, back grill) and an air cooling unit (13 – motor-driven cooling fan), wherein the fans are used to cool the apparatus (see Abstract; see col. 2, line 64 – col. 3, line 4) (as seen in Figure 2, 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Lee et al. by incorporating cooling fans, as taught by Miyagawa et al., so to provide an active means of cooling the apparatus, thus reducing the overall temperature of the apparatus and making it less harmful for users to operate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Lee et al. by using air as the system's cooling fluid, as taught by Miyagawa et al., because air is an abundant, light-weight and easily assessable cooling fluid, thus providing a means of reducing the costs and maintain associated with operating the apparatus.



(Partial illustration of Figure 34)

Regarding claim 14, Lee et al. disclose the recited limitations in claims 2 and 3.

Regarding claim 15, Lee et al. disclose the recited limitations in claim 4.

Regarding claim 17, Lee et al. disclose a depression (as seen in the partial illustration of Figure 34 above) on a lower surface of the recess to receive the air cooling unit of the grill cooker (as seen in Figures 4, 12a, 34), with a air hole on a surface of the depression (as seen in Figure 34) to draw air into the cooling unit (as seen in Figure 34) to allow the grilling unit to be cooled by the air (indirectly) when the grill cooker is set in the recess, the cooling unit being received in the depression (as seen in Figure 34).

Regarding claim 18, Lee et al. further disclose the air cooling unit extends downward from the lower portion of the cabinet and is received by the depression (as seen in Figure 34).

Regarding claim 19, Lee et al. disclose the fluid goes through the grilling pipe having the food thereon (see col. 6, lines 9-15).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. as modified by Miyagawa et al. as applied to claim 10 above, and further in view of Han et al. (US 2004/0089284 A1).

Lee et al. as modified by Miyagawa et al. do not expressly disclose:

- details related to the position of the plurality of heating units;
- a plurality of heat reflecting plates and details related thereto.

Han et al. teach of a cooking apparatus that is comprised of a heating unit, a heat reflecting unit and a food support unit (see Abstract). Han et al. further disclose that the apparatus is comprised of a cabinet (10 – body), a plurality of heating units (16 –

Art Unit: 3744

heating units) that are arranged on opposite side surfaces of the cabinet (as seen in Figure 4), and a grease collecting unit (30 – heat reflecting unit). Further disclosed is that the heat reflecting unit is comprised of a plurality of heat reflecting plates (35a, 36a – reflecting plates) that are positioned to face the heating units (see paragraph 0039, Figures 1, 3, 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Lee et al. as modified by Miyagawa et al. by incorporating a plurality of heating units that are aligned on opposite sides of the apparatus, as taught by Han et al., so to provide a means of evening cooking food items, thus increasing the apparatus' energy efficiency and reducing the time needed to cook food items (see paragraph 0003).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Lee et al. as modified by Miyagawa et al. by incorporating a plurality of heating reflecting plates that are aligned on opposite sides of the apparatus, as taught by Han et al., so to provide a means of maximizing the heat that is emitted to the food items, thus increasing the apparatus' energy efficiency and reducing the time needed to cook food items (see paragraph 0003).

Allowable Subject Matter

Claims 6-9, 12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

Art Unit: 3744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJE
1/8/07

Michael J. Early
Patent Examiner
Art Unit 3744




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SUPERVISORY PATENT EXAMINER